No. 1

January 1947

SPE NEWS

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SPE NEWS

Issued Monthly to all Members of the Society of Plastics Engineers

Vol. 3 No. 1 January, 1947

MERCHANDISING BECOMES A MAJOR ISSUE

BY CHARLES A. BRESKIN

The progress made by the plastics industry in 1946 from the standpoints of production, engineering and technology was amazingly good in spite of material, machine and mold shortages, labor difficulties and economic uncertainty.

But in the important and related fields of merchandising, consumer and trade education, and public relations this industry pursues an indecisive role. Some progress has been made by individual firms, generally for their own protection. One or two worthy operations in these fields were promoted by the industry as a whole. But nothing was done carefully enough, powerfully enough or with enough coordination to make it as effective as it could and must be.

There are many reasons why the present period is crucial—why a sustained merchandising, educational and public relations program for the industry is probably one of the most important projects to be promoted in 1947. These reasons can be better understood if we briefly review a little history and find out exactly where we stand today.

Our "Guest Editor" this month needs no introduction to any person connected even remotely with plastics. Charles A. Breskin, Editor and Publisher of Modern Plastics Magazine, attended Lewis Institute of Technology in Chicago. Some years thereafter were spent on various engineering assignments. In 1918 he became associate editor of "Rock Products" magazine, a journal devoted to the production of non-metallic minerals. In 1925 he was appointed Vice President and General Manager of Packing and Transportation Publications, Inc. In 1927 the Breskin and Charlton Publishing Corporation was formed, and issued a magazine, "Modern Packaging." In 1933 he purchased "Plastics" magazine and the publication continued under the name of "Modern Plastics." He now publishes the aforementioned two magazines, as well as the Modern Plastics Encyclopedia, and the Modern Packaging Encyclopedia.

During the war, two main attitudes toward plastics products were developed in the public mind. With very little material available for civilian use, and under pressure of demand from insistent merchandising outlets, some plastics processors permitted themselves to turn out makeshift products using marginal applications of material and immature designs. These cases led to unfavorable publicity in the popular press and elsewhere. At the same time, war uses of plastics and the many new related developments led to an over-glamorized you-can-expect-miracles type of propaganda.

Thus, some of the public became convinced that the plastics industry had tremendous possibilities for the manufacture of wonderful things, miracles, as it were, but suspected that it lacked either the ability or the desire to make them.

Ignored in this fanfare of too hot and too cold publicity, were the time-honored standard applications of plastics in the electrical field, in household appliances, in transportation, in communication, in electronics, in industry, etc. They were forgotten because the plastics industry didn't capitalize on them. Ignored were thousands of worthy new applications while junk got the spotlight. The proven uses were ignored because the industry lacked programs for public relations, for informative labeling, and for consumer education.

Into the middle of this muddle of public opinion in a period of high demand for anything, crept the get-rich-quick jackals who had no permanent stake in the industry. Frequently they had no connection

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SPE NEWS

Vol. 3 Number 1

Published monthly except July and August by the Society of Plastics Engineers, Inc., under the direction of Thomas E. Orr, Chairman, National Publications Committee

BUSINESS OFFICE — THEATRE BLDG., BIRMINGHAM, MICH.

JESSE H. DAY, *Editor*
CASE SCHOOL OF APPLIED SCIENCE
CLEVELAND 6, OHIO

HAROLD IVES, *Eastern Representative*
247 Park Avenue, New York 17, N. Y.—Eldorado 5-6589

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BULLETIN

SPE PLASTICS SHOW MOVED TO NAVY PIER DRILL HALL

Word has just been received from J. O. Reinecke, General Chairman of the Show Committee, to the effect that the Third SPE Plastics Show will be held in the Drill Hall at Navy Pier instead of South Hall.

This late-hour shift was made necessary by the fact that the War Assets Administration, now occupying South Hall, requested an extension of their lease to March first.

Exhibitors who had contracted for space in South Hall were immediately notified of the change and informed of their space assignment in the Drill Hall.

A few weeks ago, South Hall was leased to War Assets Administration, with the understanding that they would vacate the property by January 10th.

Thus, the City of Chicago, owner of the Navy Pier, was compelled to make the Drill Hall available to SPE. Mr. Reinecke stated that SPE had tried to obtain the Drill Hall originally but the City of Chicago insisted on our using South Hall.

The Drill Hall is located near the main buildings of the Pier but is more accessible and is a more attractive setting for the Third SPE Plastics Show.

Every effort has been made to assign Exhibitors to spaces equivalent or better than those assigned in South Hall.

SPE In Foreign Lands

SPE now has an international membership with Members in Sweden, Switzerland, Mexico and Canada. Recent issues of SPE News have listed the following new Members: Carl H. Jacobson, General Manager, Hammarby Baketile Industri AB, Stockholm 20, Sweden; Dr. Jose Polak, Chemical Consultant, Edificio Internacional, Pasco Reforma No. 1, Mexico, D. F.; Rafael Quijano R., associate of Dr. Polak (same address), and Mr. W. G. Gregory, Assistant General Manager, Eclipse Fountain Pen Co., Toronto, Canada.

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Plans Completed For Show And Technical Meeting

More than sixty exhibitors will occupy 105 spaces at Navy Pier for the Third SPE Plastics Show, which opens on Saturday, January 25, according to J. O. Reinecke, General Chairman of the Show Committee. Mr. Reinecke stated that the number of exhibitors and the area occupied by them is almost identical with the SPE Detroit Show last year. However, the total area utilized will be considerably larger than Detroit due to the special feature displays and the stage and auditorium area for the Style Show.

Advance registrations for the Technical Meetings indicate that the attendance at the technical sessions, starting Monday the 27th, will break all records, according to L. H. Amrine, Chairman of the Registration Committee.

W. L. Hess, Chairman of the Meetings Committee, stated that twenty-eight papers have been scheduled for presentation at the Congress Hotel. Schedules listing the day and time of each paper have been mailed to all SPE members and to many non-member engineers who may be interested in attending these sessions.

Meet The New National Directors

We take great pleasure in introducing the four National Directors of SPE—Messrs. R. B. Bishop, P. F. Corbin, R. G. Dailey and E. A. Russell. These individuals were elected on December 2nd as briefly announced in the December SPE News.

Richard B. Bishop is a research engineer in the Research and Development Laboratories of Socony-Vacuum Oil Co., Paulsboro, N. J., where he has been employed for the past six years. He received his technical education at Holy Cross College, graduating in 1938, with the degree B.S. in Chemistry Cum Laude. He was awarded his Master's degree in Chemistry at Holy Cross in 1939 and attended the Johns Hopkins University Graduate School in 1940. Mr. Bishop is a Member of SPE and is the retiring President of Philadelphia Section. He is also a member of American Chemical Society.

Paul F. Corbin, an old timer in the coated fabrics industry, is Manager of the Press Polishing and Laminating Division of Textileather Corporation of Toledo, Ohio. Mr. Corbin was born in Malden, Mass., just before the turn of the century and graduated from University of Maine in 1921—B.S.Ch.E.

Paul has been active in SPE affairs since the organizing of Toledo Section and served as Section

(Continued on page 11)

A QUICK LOOK at the Plastics Industry

By PAUL L. REED

Paul L. Reed has been the editor of "Industrial Plastics" since its inception. Prior to his war service he was editor of "Tool & Die Journal." He has edited the three editions of Gordon B. Thayer's "Plastics Molds." With over 20 years of technical editing experience he has been a member of several technical and engineering societies. He has contributed to the technical and general circulation press. He is acting chairman of the Cleveland Section, SPE.

THE plastics industry is new as an industry that challenges the attention of the general public and in that it supplies parts, assemblies and products to American industry and commerce both competitively and by creating new markets by the intrinsic possibilities of plastics formulations.

However, the plastics industry has deep roots. If, for the sake of simplicity, we consider the two basic roots at the chemical and the machine tool industries, plastics is by no means a new industry.

Let us look first at the chemical background.

In 1846 Schoenbein, a German chemist, made the first nitrated cellulose by mixing nitric and sulphuric compounds. He is generally considered as the discoverer of cellulose nitrate. However, his research was to improve the earlier nitric acid and vegetable starch explosives which had proved too sensitive and violent. Thus, at the very beginning of plastics, research for war gave us our first basic material. Incidentally, at the end of a century of development, particularly the years 1942-1945, the ferment of war was largely responsible for the rise of plastics as a major American industry.

Billiards was a fashionable gentlemen's pastime in the middle years of the last century. Ivory was universally used to make billiard balls. The only source was the tusks of the African elephant. By the close of the American Civil War the supply of ivory had reached the vanishing point. A large American manufacturer offered a prize of $10,000 for a suitable substitute. Among those who made a bid for this rich prize was John Wesley Hyatt, an Albany, N.Y., printer. In 1868, by a happy circumstance, he mixed solid camphor with a mixture of cellulose, nitric acid and sulphuric acid. He found that the mixture (nitrocellulose) was solvent in camphor and that, when heated, the pulp was moldable. The new material, which Hyatt called Celluloid, was found, when cooled, to be strong and hard.

Hyatt, incidentally, did not collect the prize money. Instead, with Charles A. Seeley as a partner, he set up in business to make dental plates. The Celluloid Manufacturing Company was very successful and in 1871 moved to Newark, N.J. This was the beginning of plastics manufacture in this city, now one of the most important centers for the manufacture of plastics materials and parts.

The basic process was the nitrating of cotton rag tissue cellulose to a pyroxylin containing about 11 per cent of nitrogen, thereafter standard for many years. The successful business continued to grow, absorbing a number of competitors. The early products were largely confined to men's collars, cuffs and shirt fronts. This plant, now a Celanese unit, is the oldest continuously operated materials plant in the country.

The success of the Celluloid Company led a group of Newark business men in 1881 to form the Merchant's Manufacturing Company to make a new plastic which they called "Pasbosene." The principal products were martingale rings and other saddlery hardware. However, this company failed because they did not learn to make the nitrocellulose properly.

In 1883 two small companies merged to form the Cellonite Company. This company prospered and three years later it was incorporated under the name of The Arlington Manufacturing Company with the building of a small plant at Arlington, N.J. The company continued to grow and by 1915 was the largest pyroxylin manufacturer in the country. In that year E. I. du Pont de Nemours & Co., Inc., purchased the company whose plant and in personnel became the nucleus of the Plastics Department of that great organization.

In 1891 the Fiberoid Company was organized and set up a factory at Indian Orchard, near Springfield, Mass., for the manufacture of celluloid. This unit eventually became an operation of the Monsanto Chemical Co.

Leominster, Mass., long a comb manufacturing center, had its first plastics plant in 1897. In that year Bernard W. Doyle organized the Viscoloid Company. This company, after a successful history, was purchased by du Pont in 1925.

Perhaps the most important incident in the modern development of the American plastics industry was the fact that the first prize in chemistry at the University of Bruges (Belgium) in 1889 was a travelling scholarship. The winner, brilliant Leo Henrik Baekeland, professor of chemistry at 24, promptly headed for the United States.

Baekeland was interested in photography. He soon produced a paper, Velox, that utilized a special colloidal chloride of silver. He set up in business as Nepera Chemical Co. Ten years later he sold the rights to his process to George Eastman for one million dollars.

Baekeland, with the instincts of a true researcher, went on experimenting. Like Charles Goodyear, he

(Continued on page 5)

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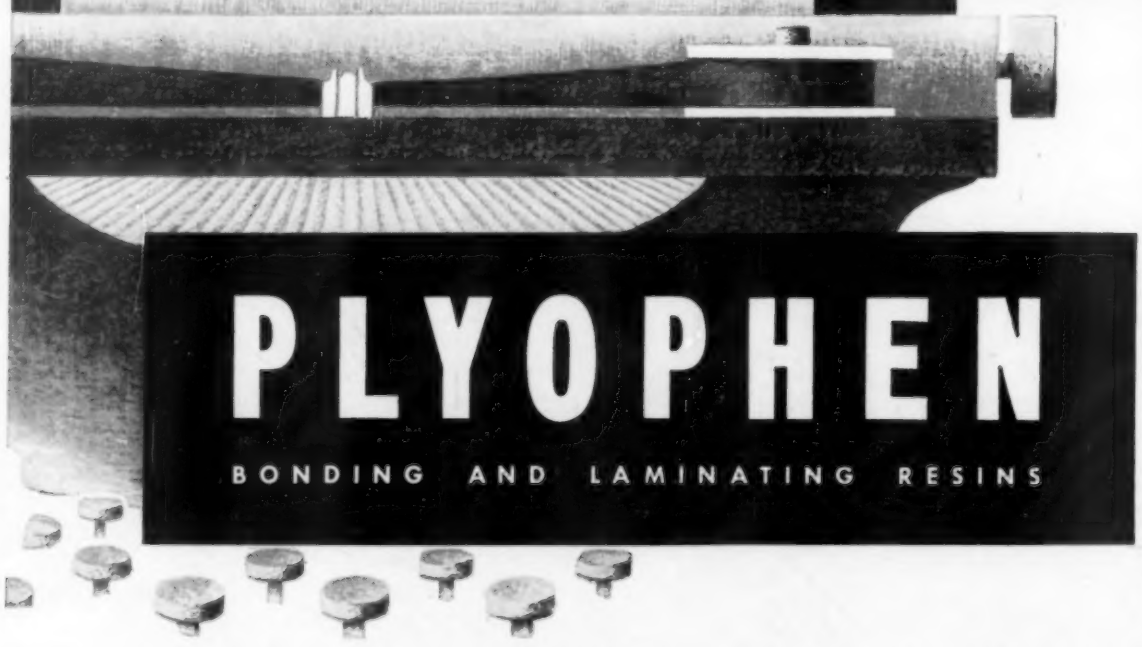

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QUICK LOOK (from page 3)

cooked up batches in a home-made laboratory. In 1907 he was searching for a synthetic shellac. He had mixed compounds of phenol and formaldehyde. He made his notes and proceeded to clean up. Frugal, as well as indefatigable, he attempted to remove a thick mixture from a test tube by heating it. The heat-hardened mixture defied every solvent he tried on it. Baekeland had found the first modern synthetic thermosetting plastics material. This resin shortly was called Bakelite after its discoverer.

Richard W. Seabury, general manager of the Boonton Rubber Manufacturing Co., now Tech-Art Plastics Co., was molding parts from reclaimed rubber and he asked Baekeland for samples. Seabury was seeking a material with dielectric properties for electric parts manufacture. He mixed Baekeland's resin with an asbestos fibre filler. The result was the first successful molded phenolic employing a filler for special properties.

The machine tool industry, or more specifically the press manufacturers, makers of tool room equipment and builders of special purpose machines and perishable tools, played an essential part in the development of the plastics industry.

It is difficult to realize that the first injection molding machine went to work in this country less than fifteen years ago. It was German designed and built. At the present time the first four builders of injection presses sell more presses than all the rest of the world combined.

Compression presses used in the plastics, rubber and plywood industries are adaptations of metal working equipment. The long history of press development for metal stampings in particular, permitted relatively easy adaptation of both mechanical and hydraulic presses for compression molding. Since the thermosetting materials are largely used on compression presses, this phase of the molding industry developed earlier than the injection presses, on which most of the thermoplastics are molded.

The extrusion press for plastics is a direct descendant of the machine developed before 1900 for rubber.

The standard tool room machines—lathes, mills, planers, grinders, etc.—are utilized by the plastics industry for molds, dies, jigs and fixtures exactly as any other industry. Among the special machines utilized are duplicators, engravers, inspection and testing machines.

For finishing and fabricating both standard and special machines and equipment are used. The drill press, the band saw, sanding, polishing and buffing machines and wheels are standard equipment. For tumbling, painting, pre- and after-heating and drying and for low pressure techniques, adapted or special equipment is utilized.

Standard perishable tools are used in volume by the plastics industry. New designs for greater efficiency in finishing operations are appearing.

Two very significant facts that demonstrate that the plastics industry is coming into its own must be mentioned here. The first is that special testing and inspection equipment and machines are finding their way into the processing shops and plants. The second is that production and quality control methods and techniques are being made a part of the standard operating procedure in more and more shops and departments.

The war period saw the plastics industry grow tremendously. When the full story of the contribution of plastics to the war effort is told, it will be one that every member of the industry will have reason to be proud of. The production of plastics expanded six-fold during the war period. Techniques, that might have taken ten years to develop, were pushed forward, shared and perfected. Caught up in the spirit and held to the necessity, the plastics industry, to paraphrase an Air Corps boast, did the impossible immediately and took only a little longer to achieve the miraculous.

The postwar period has been one of many difficulties. Some have been overcome, others are still with us. The year 1946 had both achievements and disappointments. The production rate of materials reached a peak in August when an increase of 40 per cent over the approximate 900,000,000 pounds produced in 1945 was reached. This rate, due to the cumulative effects of the two coal and the steel strikes and subsequent serious shut-downs in the materials making plants, has dropped to not much more than half the peak rate. A reliable estimate, recently made, is that the current production is about double the 1941 rate (which was approxi-

(Continued on page 7)

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QUESTIONS AND ANSWERS

Everybody runs into trouble, even in the plastics business; and when that happens, the nicest thing in the world is to have someone handy who can help you figure your way out.

The question is 'Who to ask'? And the answer is 'Us!'

By 'Us', we mean, of course, the S.P.E. News.

A board of experts, set up by Tom Orr, is ready to answer any and all questions relative to the plastics business that are sent to the SPE News. We have no crystal ball, but if your question has an answer, you can get that answer through the new feature of the News, the Questions and Answers column. Be your problem one of production, mold difficulties, or about materials, or an academic question, send it in.

The SPE News is ready to serve you through 1947!

St. Louis Section Sponsors Lectures At Washington U.

As announced previously, St. Louis Section is cooperating with Washington University in a course of fifteen lectures on plastics at the University. The classes will begin on February 10th and continue to May 19, one night per week, from 7:45 to 9:30 P.M. Tuition fee for this special course is $20.00. The following subjects will be discussed and in each instance will be accompanied by an exhibit of finished consumers' items and component plastic parts:

Thermosetting Materials—Phenolic, Molded.

Thermosetting Materials—Ure Formaldehyde and Melamine, Molded.

Casting Resins—Phenolic, Resins in plywoods and impregnated woods.

Laminated Phenolic, Urea and Melamine Materials—Sheets, Tubes and Rods.

(Continued on page 15)

Thermoplastic Materials—Cellulose Derivatives—Molded, extruded, sheets and filaments.

Detroit Has Xmas With S.P.I.

By L. D. LAMB

On Friday, December 13th the Detroit Section of SPE held a joint Christmas party with the Detroit Rubber and Plastics Group at the Detroit-Leland Hotel. Well over two hundred members attended.

We had a very lovely young lady who sang very pleasingly—per George Gress. A girl contortionist who had several men hiding the very excellent results of their appetites, and a young comedian who was very good.

The high light of the evening was a little quiz program put on by Russ Mullholland, Quiz Master of Station WJR-Detroit. Without mentioning names, the six men selected are probably still wondering where Mullholland got all the very private information. He used this to create several laughable traps for the quizees.

QUICK LOOK (from page 5)

mately 350,000,000 pounds). Currently also, the demand is three times the supply.

The planned expansion of facilities for manufacture of basic chemicals and plastics has been delayed also. The shortages of building materials and equipment, increased labor and construction costs and increased caution on the part of management, all have acted to retard the expansion program. The major part of the new program previously expected in 1947 will now run well into 1948.

However, there is reason for looking forward with hope and determination. W. Stuart Landes, President, The Plastics Materials Manufacturers Association, Inc., in concluding a year-end statement on the outlook for the plastics industry says: "The problems that lie ahead of us in 1947, gigantic as they seem, will surely be met. I am optimistic for the

(Continued on page 9)

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SPE Members to Publish Plastics Book

SPE Members Robert L. Davis, of the Fabri-Form Co., and Ronald D. Beck of Continental Can, are authors of "Applied Plastic Product Design," published by Prentice-Hall. The text covers in detail the design of plastic parts which have been molded by compression or injection, and the design of extruded parts, laminated punchings, low and high pressure laminated and build-ups, and the forming of thermoplastic sheet. Material properties have also been covered.

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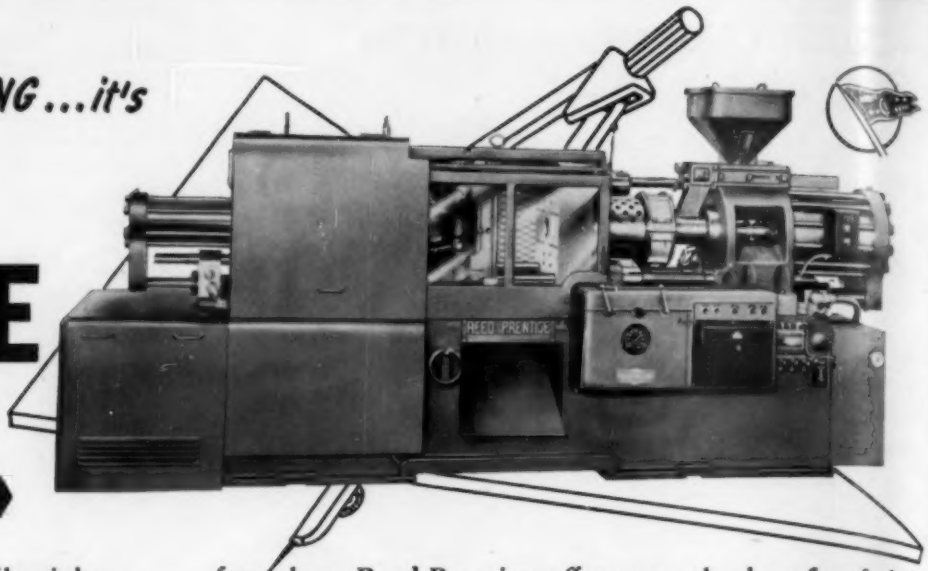

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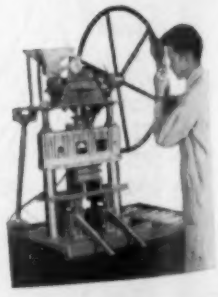

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QUICK LOOK (from page 7)

long pull because I believe our system of free enterprise and our natural resources will continue to keep America in the van of progress. The plastics industry is still in its infancy, and we look for a sound steady growth. Although the road ahead is arduous, the opportunities are challenging."

A Chronology of Plastics Material and Production

1868—Nitrocellulose—John Wesley Hyatt
1897—Casein—developed by W. Krische and Adolphe Spitteler
1907—first Phenol Formaldehyde—Leo H. Baekeland
1909—first Cast Phenolic—Leo H. Baekeland
1910—Phenol Formaldehyde molding powders—Bakelite Corporation
1912—Soy bean as fertilizer crop—Augustus E. Staley (Staley Corn Products)
1912—first Phenolic bonding resin—Leo H. Baekeland
1919—first Casein plastic—introduced by George Morrell Corporation
1921—first patent on Furfural Phenol—E. E. Novotny, Durite Plastics, Inc.
1922—first synthetic Furfural Phenol manufacturing
1922—first soy-processing mill
1924—Urea-formaldehyde (casting)
1926—"Tego" process—Dr. Goldschmidt—paper and plywood veneer laminate
1926—Alkyd Resins—General Electric Company
1927—Cellulose Acetate—Celluloid Corporation
1927—Molded plywood plane—Lockheed "Vega"
1928—Vinyl compounds—first Vinyl resin, a Polyvinyl Acetate. Polyvinyl chloride and other copolymer vinyls followed. Made by Carbide and Carbon Chemicals Corp.
1928—Cast Phenolics—Catalin Corporation
1928—Ford begins soy research. (plant sold by the Ford Motor Company, 1946)
1929—Urea molding powders—American Cyanamid Company
1930—The sales value of plastics materials reached a total of $25,000,000
1932—Ethyl Cellulose—The Dow Chemical Co.
1933—Cellulose Acetate—injection molding powders

(Continued on page 11)

Calling All - -

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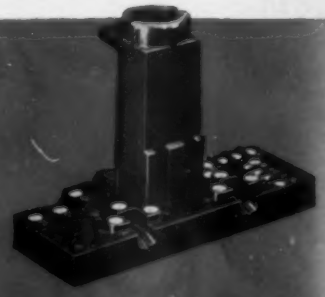

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DIRECTORS (from page 7)

Secretary in 1945 and Section President in 1946. He is also a member of American Chemical Society, Tau Beta Pi, Honorary Engineering Society and Toledo Kiwanis Club. During the recent war, Mr. Corbin served for over three years as a dollar-a-year consultant to the Coated Fabrics Unit, Chemical Bureau, WPB in Washington.

Robert G. Dailey is a native of Michigan and received his technical education in his home state—B.S. in M.E., University of Michigan, 1937. Bob has been connected with Standard Products Co., Detroit, in various capacities since 1940 and has been Sales Manager of the Plastics Division for the past two years.

Prior to his present work, he served as Chief Engineer of the Plastics Division, first at the company's Port Clinton, Ohio, plant and later at the St. Claire, Michigan, plant, during which time he was engaged in the tooling of many plastics items of war production.

Previous to his connection with Standard Products, Bob was employed by Firestone Tire and Rubber Co. after his graduation from Michigan, where he was a Sales Engineer in the Firestone Plastics Division.

Bob Dailey was active in the founding of Detroit Section, SPE, and is now serving as a Section Director in addition to his new office as a National Director.

(Continued on page 15)

QUICK LOOK (from page 9)

1935—Ethyl Cellulose—Hercules Powder Company. In 1937 The Dow Chemical Company introduced Ethofoil.
1935—Walnut shell flour filler first used commercially
1936—Acrylics—(Methyl Methacrylate)
1936—Plexiglas—Rohm & Haas Co.
1937—Lucite—du Pont
1937—Polystyrene powders and castings—The Dow Chemical Company 1939 rods, tubes (Dow, also Bakelite, Chemaco, Catalin and Mansanto)
1937—Duramold plane body—Fairchild AT-13
1937—First soy fibre—made by Robert Allen Boyer (Ford Motor Company)
1937—Production of molding powders and resins—130,000,000 pounds (report of 32 companies)
1938—Nylon du Pont
1938—Cellulose Acetate Butyrate —(Tenite II)—Tennessee Eastman Corp.
1938—Polyvinyl Butyral—du Pont, Carbide and Carbon Chemicals Corporation
1938—Lignin—Masonite Corporation
1938—Plastics material manufacture reaches approximately 154,000,000 pounds.
1939—Casein fibres
1940—Melamine—American Cyanamid Company
1940—Vinylidene Chloride—(Saran)—The Dow Chemical Company
1940—Production of plastics was estimated at 308,000,000 pounds.
1940—The value of synthetic rubber and borderline plastics (rayon, packaging materials, etc.) reached annual sales of $250,000,000.
1941—Plastics materials reached a total of approximately 350,000,000 pounds valued at $125,000,000.
1943—Production reaches 603,000,000 pounds
1944—Production of plastics estimated at 782,000,000 pounds. Molded and laminated parts produced valued at $306,000,000.
1945—Cellulose Propionate—Celanese Plastics Corp.
1945—Plastics output reaches 808,000,000 pounds; sale of 753,000,000 pounds valued at $267,000,000. The two major uses were: 304,000,000 pounds for protective coatings; molding and casting 160,000,000 pounds.
1946—Polytetrafluoroethylene—du Pont
1946—Production utilization of Polyester resins in laminates
1946—(August) production rate of 1,200,000,000 pounds of plastics reached.

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MERCHANDISING (from page 1)

with it either (see "The Plastics Paint Racket," MODERN PLASTICS, November 1945) but merely wanted the magic of the name "Plastics" to use as a sales lever. And down on the sales front were the counter clerks in the stores—unknowing, uncaring and untrained—pushing unlabelled merchandise across the counters and answering complaints caused by ignorance with, "Oh! That's what you can expect from plastics!"

V-J Day, every molder and fabricator, booked solid on civilian goods for months in advance, urged machinery makers and mold makers to speed up deliveries and begged for increased allocations of materials. A public starved for color* and for utility products, and a trade starved for merchandise with a postwar sales angle, demanded plastics in quantities and at speeds far beyond the industry's ability to produce. The radio, electrical, communications, toy and other industries, planning their new products, demanded plastic components because of their knowledge of plactics' efficiency and their satisfaction with former applications. The popular press yammered for the miracles in plastics it had itself conjured up during the war.

The miracles didn't appear, because miracles have to be designed, formulated, processed and fabricated. The men in the plastics industry most capable of producing miracle products are always the very ones who will not market untested miracles. So the public and the press were disappointed. What did appear, and quickly, were more misapplications, a flock of improperly plasticized vinyls, badly fabricated acrylic novelties made, in many cases, from scrap, poorly designed molded pieces—and no public relations or merchandising program.

Essentially the same thing happened with materials other than plastics, but in those cases neither the public nor the trade expected miracles so the industries concerned were not faced with the same corrective problem.

Three other factors contributed to the need for better merchandising and public relations:

First was the fact that materials such as aluminum, wood, leather, rubber, etc., came back on the market supported by new designs, new formulations and new sales pressure.

Second was the rapid addition of new materials and nomenclature to the plastics industry, which pointed up the paucity of trade and consumer education in types of plastics, their qualities and their uses.

Third was the fact that some firms, formerly custom molders and fabricators, began to develop proprietary lines; other companies, formerly users of custom services, put in their own molding and fabricating departments and brought to their plastic components and items the weight of their advertising and sales experience.

*"The Ups and Downs of Color," MODERN PLASTICS 21, 81 (May 1944).

An article, "Information Please," published in the June, 1944 issue of MODERN PLASTICS, showed the plastics industry what other industries were doing in informative labeling and offered general suggestions on the subject. In October, 1945, an article by Alfred Auerbach presented the results of a survey he made for MODERN PLASTICS. The survey was made by having research people buy things made of plastic in many stores, ask questions about the products, their advantages and limitations, the materials and their qualities. It was a pitiful exposure of abysmal ignorance on the part of the retail salespeople, and lack of attention to merchandising and education on the part of the plastics industry as a whole.

The S.P.I. booklet on informative labeling, while it established certain valuable premises such as the importance of telling what punishment a plastic product should be given, fell short of its objective because it didn't have any promotion or pressure behind it—just a gentle urging that informative labeling is desirable.

As a result, some of the labels which have appeared in the guise of information have been hypocritical gestures. Take, for example, the label inserted in a vinyl patent handbag. This masterpiece, offering no material trade name, no maker's name, no company name, and being used to label a material that was improperly plasticized, took occasion to boast of durability, colorfulness, ease of cleaning, while warning that the handbag should not be left for any length of time on a varnished or enameled surface! In new shower curtain and closet accessory departments in stores, signs appeared declaring that the stores could not guarantee the color fastness of plastic materials.

The educational work undertaken by the industry during the past year, was well conceived, well presented and well accepted. New York University, in cooperation with the S.P.I. Committee on Plastics Education, decided to provide in the 1946-47 semesters a course in plastics through its School of Retailing. The course is a step in the right direction. In fact, its acceptance was so good that the course is being repeated by New York University and plans are under way to introduce the same program with outstanding universities throughout the country.

The P.M.M.A. booklet, "The Plastics Industry," simplifying plastics for general readers, received a circulation of about 5,000 and was read by editors, writers and others who are concerned with public opinion. The S.P.I. booklet, "The Story of the Plastics Industry," had come through two printings of 45,000 and a third printing is just out. Two other important contributions to consumer education in plastics were the MODERN PLASTICS booklet, "Everyday Plastics," of which 30,000 copies have been distributed and which is now being revised and expanded for a new edition with larger circulation; and the Bakelite Corp.'s "The ABCs of Modern Plastics," which has had a distribution of 10,000. These booklets constitute the most forward steps made by the industry in the past year toward consumer education. Un-

fortunately the best and widest use could not be made of them without adequate public relations support and equally important financial backing.

In March, 1945, MODERN PLASTICS presented a 10-point program for this industry. It was repeated in June, 1945, accompanied by comment from the industry. It was positive and possible. A revised version of it appears below so that readers may see where the present lopsided merchandising efforts have veered from a logical course into channels of happenstance and makeshift.

On the labor relations program, the technical program and the accounting program the industry has devoted much time and effort and has done an effective piece of work. Now is the time to balance those phases of the industry's activities with the educational and merchandising phases.

If industry will devote as much time and effort to public relations, informative labeling and consumer and trade education as it has to technical matters, 1947 can witness the establishment in this industry of merchandising plans worthy of emulation by any other industry anywhere.

Progress to Date on the Ten-Point Program

1. Expose current misleading theories, unqualified opinions and all exaggerations.
   No coordinated effort on this point to date.
2. Direct attention to reliable channels of information.
   Work of S.P.I. Education Committee and effort by individual firms are having some effect but within limited field.
3. Share technical knowledge with the industry.
   Excellent program of S.P.I. and S.P.E. Technical Committees accomplishing much here.
4. Eliminate the "chiselers."
   Exploitation of word "plastics" by unethical people continues. Little effort made by the industry's official bodies to combat it.
5. Outline opportunities for investment and labor.
   No economic research facilities available except through private concerns, with capital seeking outlets, a position of imbalance in the industry could be reached, which would be damaging to stability.
6. Prepare for competition by reducing the basic costs of both materials and manufacture.
   Not a project possible at this time; although meriting study by a scientific committee from the standpoint of alternate chemical sources of materials, for example.
7. Base price quotations on prearranged uniform standard factors.
   Some worthwhile progress made by Accounting Committee of S.P.I. Program must be furthered by promotion within the industry.
8. Admit the limitations of plastics and reject unsuitable applications.
   Nothing on this matter by the industry's official bodies. Therefore, material manufacturers policing use of their advertised trade names on applications.
9. Adopt the standard grades of commercial types of plastics and identify them for purposes of reference by simple chemical terminology.
   Informative labeling and merchandising programs, promoted by individual material manufacturers, molders and fabricators are uniformly based on trade names only. Increasing number of these is tending to magnify the public's confusion about plastics.
10. Undertake a program of consumer education to illustrate what plastic materials will and will not be able to do.
    Any educational program must be supported by public relations, and until the current worthy efforts in public education about plastics materials is thus supported, it can hardly achieve its object.

St. Louis Hears Shannon At Christmas Meeting

By DAN OTTO

The annual Christmas party of the St. Louis Section of the Society of Plastics Engineers was held on the evening of December 10 at the DeSoto Hotel. The featured speaker was Mr. Ross Shannon, Sales Manager of Socony Vacuum Oil Co., who kept a large audience in stitches with his talk entitled "Grooved Thinking."

After the business at hand was completed, card games ensued during which the guests were refreshed with beer and pretzels.

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Cleveland Section Engages In Plastics Education

Sponsors Course of Instruction at John Huntington Polytechnic Institute

The directors of the Cleveland Section, Society of Plastics Engineers, at the request of Alfred Mewett, dean of John Huntington Polytechnic Institute, have assumed the responsibility of providing instruction in two courses in plastics in that institution. These courses for several years past were taught by Warren V. Prince who at the time he left Cleveland to set up a plastics consultation office in Kansas City, Mo., was also chairman of the Cleveland Section.

After serious consideration and pledges of cooperation by the Educational Committee, the Board of Directors agreed to provide instruction for the courses. The cooperation of various members of the section was secured to teach subjects for which their experience best fitted them. For coordination, a continuity instructor, W. P. Rupprecht, assistant editor, INDUSTRIAL PLASTICS was recommended to the dean of the school and was subsequently appointed by the school. The members of the educational committee who act as an advisory body and review the curricula set up by the instructor are: Phil Britton, treasurer, Carter Products, Inc., Louis Friedman, treasurer, Ackerman Molded Plastics Co., A. R. Morse, district representative, Reed-Prentice Corp., W. H. Nicol, Plastics Research Dept., The Goodyear Tire & Rubber Co., Inc., Hugh Winn, instructor, Case

(Continued on page 15)

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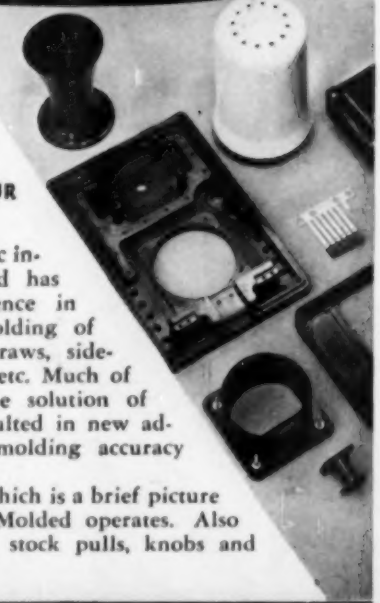

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CORRECTION

In the December issue we mentioned Mr. S. M. Silverstein as being Vice-President and General Manager of Rogers Corporation, Manchester, Conn. Mr. Silverstein is now President of the Company and, as stated in the December issue, is affiliated with Western New England Section of SPE.

Bouvet On Synthetic Fabrics Interests Joint Philly Meeting

By S. J. NOCITRA

The Philadelphia Section of SPE held a joint meeting with S.P.I. on the evening of Monday, December 9th, 1946, at the "Franklin Institute." This was an unusual and very successful meeting. Being "Ladies Night" many of the members were accompanied by their wives or friends, each of whom was presented with a pair of Nylon stockings.

Punch was served before dinner to all who attended, and everyone enjoyed a delectable dinner usually served at our meetings.

The speaker of the evening was Mr. Rene Bouvet, of the Viscose Corp. His talk was one of great interest, especially to our female guests. Mr. Bouvet's subjects was "Rayons, Synthetic Yarns, Natural and Other Materials used in Cloth Making."

Mr. Bouvet's talk was practically non-technical, and he had many samples of Viscose and acetate rayon fabrics that were passed around to the audience in the auditorium. Our speaker was well able to answer many of the questions asked him relative to selection of fabrics, their best uses, color serviceability, their care, technique of washing and ironing, etc.

The entire audience was astonished as to the texture of some of the rayon fabrics passed around. Many of those present could hardly believe such fabrics were in existence. Mr. Bouvet's debonaire manner of addressing held everyone's close attention, and he was given a hearty applause for his effort in our behalf.

The Viscose Corp. distributed to each one present, a collection of representative literature taken from their educational program and assembled especially for this joint meeting of SPE and S.P.I.

The other feature of the evening was a color film entitled "Tomorrow Always Comes," by the Princeton Film Center of Princeton, N.J. This film was a 30-minute fashion show of women's clothing, and was thoroughly enjoyed by all those present.

The next meeting of the Philadelphia Section will be at Franklin Institute, Monday, January 20, 1947. Dinner will be at 6:00 P.M. in the Dairy Dell of the Institute with the meeting following at 8:00. The speaker of the evening will be Mr. A. Valente, Industrial Electronics Representative, Westinghouse Electric Corporation, whose subject will be "Radio Frequency Heating." A film, "Radio Frequency Heating," will also be shown.

CLEVELAND PLANS FOR '47

By GEORGE B. KOCH

The Cleveland Section of the Society of Plastics Engineers, Incorporated, has announced plans for the first three meetings in 1947. The first meeting in the new year was held January 10th at the Cleveland Club, with election of local officers. This election was important inasmuch as it was held prior to the National Society elections and the National show to be held at Navy Pier, Chicago, January 25th through January 31st. Speaker for January meeting was E. F. Gibian, Chief Industrial Engineer, Thompson Aircraft Products Corporation, who discussed "Introduction to Process Control by Statistical Methods."

The February 21st meeting will be held in Akron, Ohio, with W. H. Kemper, metallurgist of the Carpenter Steel Company, Reading, Pennsylvania, as speaker. His subject will be "Mold Steels and Their Applications."

The March 28th meeting will return to the Cleveland Club with Julian C. Kazimier, sales manager, Amos Molded Plastics, Edinburgh, Indiana, as speaker. His subject will be "The Desirability of Engineering Knowledge for Plastics Salesmen."

On April 25th, B. F. Hantz, Chief Engineer American Insulator Corp. of New Freedom, Pa., will speak on "Cold Molding." Slides of the process will be shown.

SPE IN FOREIGN LANDS (continued)

Mr. Jacobson of Stockholm was in this country a few months ago and became acquainted with a number of our members. He is active in the Swedish Plastics Federation. Dr. Ernst Schrenk, Chief Chemist, Worbla Ltd., Papiermuehle-Berne, Switzerland, has recently been elected to membership.

DIRECTORS (from page 11)

Earl A. Russell is Chief Engineer of Spaulding Fibre Company, Tonawanda, New York, and has been connected with this company for over 23 years. He is a graduate of Syracuse University in Chemical engineering (1919). Mr. Russell has been a Member of SPE since 1943, when he was affiliated with Chicago Section. When Buffalo Section was organized last year, he transferred and has been active in Section activities since then.

CLEVELAND (from page 14)

School of Applied Science and Paul L. Reed, editor, INDUSTRIAL PLASTICS.

Under these arrangements a beginner's and an intermediate course in plastics are being given at John Huntington Polytechnic Institute. Section members who have handled at least one lecture include: Hugh Winn; M. Scott Moulton, B. F. Goodrich Chemical Co., A. R. Morse, William Johnson; Plastic Engineering, Inc., Dan Kent, B. F. Goodrich Chemical.

The various molders of the Cleveland area as well as the materials manufacturers have been most liberal in providing samples of raw materials, molded products and technical literature. It is the hope of the directors of the Cleveland Section, SPE that such basic courses in plastics will provide training that will be of subsequent value to the industry.

ST. LOUIS (from page 7)

Polystyrenes—Molded, extruded, sheets, etc.

Acrylics, Molded, Casts, extruded and post formed sheets.

Polyvinyls, molded extruded and films.

Textile castings, impregnants and filaments.

Designs in Plastics, good and bad effect.

The purpose of these lectures is to assist consumers and industrial users of plastics

Mr. C. Todd Clark (Burkardt Mfg.) is Chairman of the Section Educational Committee. Mr. Clark, together with Professor Alvin Brust of Washington University are to be highly commended for their initiative and energy in organizing this series.

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PRINTED IN U.S.A.